## **High Mobility Multipurpose Wheeled Vehicle (HMMWV)**

The High Mobility Multi-purpose Wheeled Vehicle (HMMWV) is the replacement vehicle for the M151 series jeeps. The HMMWV's mission is to provide a light tactical vehicle for command and control, special purpose shelter carriers, and special purpose weapons platforms throughout all areas of the modern battlefield. It is supported using the current logistics and maintenance structure established for Army wheeled vehicles. The HMMWV is equipped with a high performance diesel engine, automatic transmission and four wheel drive that is air transportable and droppable from a variety of aircraft. The HMMWV can be equipped with a self-recovery winch capable of up to 6000 pound 1:1 ratio line pull capacity and can support payloads from 2,500 - 4,400 pounds depending on the model. The HMMWV is produced in several configurations to support weapons systems; command and control systems; field ambulances; and ammunition, troop and general cargo transport.

The HMMWV replaced M151 Jeeps (1/4-ton), the M274 Mule (1/2-ton), the M561 Gamma Goat (1 1/4-ton), the M718A1 ambulance, and the M792 ambulance.

The High Mobility Multi-purpose Wheeled Vehicle is a light, highly mobile, diesel-powered, four-wheel-drive vehicle that uses a common 4,400 lb payload chassis. Using common components and kits, the HMMWV can be configured to become a troop carrier, armament carrier, S250 shelter carrier, ambulance, TOW missile carrier, and a Scout vehicle. The 4,400 lb variant was developed as the prime mover for the light howitzer, towed VULCAN system, and heavier shelter carriers. It is a tri-service program that also provides vehicles to satisfy Marine Corps and Air Force requirements.

The HMMWV is the world standard in light military trucks. It is lightweight, high performance, four wheel drive, air transportable & droppable, land mobility system. The family includes utility/cargo, shelter carrier, armament carrier, ambulance, TOW missile carrier and scout-reconnaissance configuration. Payload varies by body style ranging from 1920 lbs on the 4 litter ambulance to 5300 lbs on limited availability Expanded Capacity variant, but is generally in the 5/4T range. A basic armor package is standard on the Armament and TOW missile carrier models.

In February 1981, the U.S. <u>Government</u> invited proposals for a new High Mobility Multipurpose Wheeled Vehicle, and AM General was one of five companies that submitted proposals. AM General's Technical Proposal included drawings depicting the design of AM General's proposed HMMWV, including a grille design with nine vertical pill-capsule.

Since its inception, the HMMWV has undergone numerous design and configuration updates and changes. These changes have included technological, environmental, operational, and safety improvements, such as higher payload capability, radial tires, 1994 Environmental Protection Agency emissions update, commercial bucket seats, three-point seat belts, four-speed transmissions, and, in some cases, turbo-charged engines and air conditioning.

In 1995, the PM introduced the A2 configuration and the Expanded Capacity Vehicle (ECV) HMMWV. The A2 incorporates the four-speed, electronic transmission; the 6.5 liter diesel engine; and improvements in transportability. The A2 serves as a platform for other Army systems such as the ground-based common sensor. The ECV vehicle also went into production in 1995. The payload of this vehicle is 5,100 lb, including the crew. One of its missions is to serve as a chassis for the M1114 up-armored HMMWV that is used by the Scouts and MPs. The ECV also serves as a platform for mission payloads and for systems that exceed 4,400 lb.

The most recent A2 variants went into production are the M1151 Enhanced Armament Carrier, the M1152 Enhanced Troop/Cargo/Shelter Carrier, M1165 and M1167.